

# ERGONOMICS RISK ANALYSIS

Job Title: Microscope Use.

Job Description: \_\_\_\_\_.

**Evaluators:**

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## Awkward Postures

<b>Neck</b>	<input type="checkbox"/> No Problem Observed <input checked="" type="checkbox"/> Twisted (rotated) <input type="checkbox"/> Tilted Back <input checked="" type="checkbox"/> Tilted Forward <input checked="" type="checkbox"/> Lateral (bending side to side) <input type="checkbox"/> Other	Specific Job Tasks: While looking in microscope and viewing computer screen	Solutions: Provide education Adjustable microscopes, equipment and/or modifications
<b>Wrist</b>	<input type="checkbox"/> No Problem Observed or Reported <input checked="" type="checkbox"/> Flexion <input checked="" type="checkbox"/> Ulnar Deviation <input checked="" type="checkbox"/> Extension <input checked="" type="checkbox"/> Radial Deviation <input type="checkbox"/> Other	Specific Job Tasks: While using microscope controls and using computer	Solutions: Provide education Equipment: padding Adjustable workstations Adaptations to equipment: knob extensions
<b>Elbows/Forearm</b>	<input type="checkbox"/> No Problem Observed or Reported <input checked="" type="checkbox"/> Flexed (arm bent up) <input checked="" type="checkbox"/> Extended (arm straight) <input checked="" type="checkbox"/> Winged (away from body) <input type="checkbox"/> Supination (palm up) <input type="checkbox"/> Pronation (palm down) <input type="checkbox"/> Sustained extension/flexion <input type="checkbox"/> Other	Specific Job Tasks: While using microscope controls and computer	Solutions: Provide education Equipment: Forearm supports, desk surface edge padding
<b>Back</b>	<input type="checkbox"/> No Problem Observed or Reported <input checked="" type="checkbox"/> Slouched <input checked="" type="checkbox"/> Inadequate Lumbar Support <input checked="" type="checkbox"/> Twisted <input type="checkbox"/> Other	Specific Job Tasks: Minimal to no back support while looking in eye piece, shoulders rounded forward, Back twists while reaching for keyboard or mouse	Solutions: Provide education Equipment: ergonomic chairs/stools Relocation of computer workstations Adjustable workstations
<b>Shoulders</b>	<input type="checkbox"/> No Problem Observed or Reported <input checked="" type="checkbox"/> Forward Reach <input type="checkbox"/> Reaching Behind <input type="checkbox"/> Raised/above shoulder height <input checked="" type="checkbox"/> Side Reach	Specific Job Tasks: Microscope controls and keyboard /mouse use	Solutions: Provide education Adaptations to equipment: knob extensions
<b>Legs</b>	<input checked="" type="checkbox"/> Insufficient leg clearance <input type="checkbox"/> Stance <input type="checkbox"/> Other	Specific Job Tasks: Since working a fixed desk height someone tall may get contact pressure on thighs	Solutions: Adaptations to environment: remove facing and/or drawers
<b>Other</b>	<input checked="" type="checkbox"/> Work surface height	Specific Job Tasks: Nonadjustable workstations with multiple users	Solutions: Adjustable workstations

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<b>Repetitive Activities</b>	Description: Forward neck posture Repetitive keystroke during counting	Solutions: Provide education Reposition device while doing counting
<b>Static Postures</b>	Description: Sitting Forward head posture Reaching	Solutions: Provide education
<b>Contact Stress/Pressure</b>	Description: Hard edges of desk surface Insufficient leg clearance	Solutions: Padding for edges of counters Adaptations to environment: remove facing and/or drawers
<b>Work Style/Flow</b>	Description: Can take 2 hours or longer, Some slides are time sensitive Tasks do allow for minibreaks	Solutions: Provide education Use external cueing device for reminder of stretch break Install Stretchware
<b>Environment</b> (organization , access, layout, hazards, lighting, temperature)	Description: Multiple users in some locations, some located at standing height position, some are assigned to individual users Sometimes working in the dark	Solutions: Provide education Adjustable work stations Use reflective tape to mark doors and floors
<b>Other</b>	Description: Currently have gel pads, various chairs, various microscopes, back cushions	Solutions: Provide equipment alternatives: including computer workstation, microscope and accessories Evaluate current equipment

## Summary:

1. Provide education on ways to avoid risk factors, body mechanics, posture, stretching, mini-breaks, alternating positions, workstation adjustments/ proper positioning (including chair and input devices)
2. Equipment recommendations: adjustable workstations (keyboard trays and monitors), edge padding, forearm pads, mini-break cueing devices, ergonomic chairs and stools
3. Environment/ equipment modifications: reflective tape, knob extensions, remove facing and/or drawers
4. Explore alternative microscope and/ or accessories
5. Perform ergonomic evaluations in all work environments for each employee

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## Microscope Risk Analysis Photos



**Photo 1. Microscope setup.**



**Photo 2. Microscope problem area.**